The 28th International Workshop on Weak Interactions and Neutrinos (WIN2021)



Contribution ID: 65 Type: Poster session

Recent results of charm physics at BESIII

BESIII has collected 2.9, 6.3 and 4.4 fb-1 of e+e- collision data samples at 3.773, 4.178-4.226 and 4.6-4.7 GeV, respectively. We report recent measurements of the (semi)leptonic decays $D(s) \rightarrow l+nu$ (l=mu, tau) and $D(s) \rightarrow l+nu$ [X=K(*), rho, eta('), a_0, K_1, and l=e, mu]. The decay constants $f_D(s)$, the semileptonic form factors f(0) and the CKM matrix elements $|V_Cs(d)|$ are determined precisely. These results are important to verify the LQCD calculations of $f_D(s)$ and f(0) and the CKM matrix unitarity. Precision tests of lepton-flavor universality with (semi)leptonic D decays are also made. Moreover, we report the measurements of strong phase differences in D0 decays, which can reduce the gamma/phi_3 measurement systematic uncertainty at LHCb and Belle II. Also, we will report the measurements of the absolute branching fractions and amplitude analyses of the hadronic D(s) decays. In addition, some new results related to Lambda_c decay may be presented.

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Session Classification: Flavor and Precision Physics Session 2

Track Classification: Flavor and Precision Physics